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ANTHROPOLOGY AT THE WASHINGTON
MEETING FOR 1911

THE annual meeting of the American Anthropological Association was held in the United States National Museum, Washington, D. C., December 27-30, 1911, in affiliation with Section H of the American Association for the Advancement of Science and the American Folk-Lore Society. The attendance was good and the program exceptionally long and interesting. The most important features were the two symposia: (1) "The Problems of the Unity or Plurality and the Probable Place of Origin of the American Aborigines," discussed by J. W. Fewkes, A. Hrdlička, W. H. Dall, J. W. Gidley, A. H. Clark, W. H. Holmes, Alice C. Fletcher, Walter Hough, Stansbury Hagar, A. F. Chamberlain and R. B. Dixon; and (2) "Culture and Environment," discussed by J. W. Fewkes, Clark Wissler, Edward Sapir and Robert H. Lowie. The first of these two discussions is printed in full in the January-March issue of the *Anthropologist*, and the second will appear in the April-June issue. Dr. J. Walter Fewkes presided at the six sessions in charge of the American Anthropological Association; also at the single session of the American Folk-Lore Society, in the absence of Professor Henry M. Belden, president of that society. Professor George T. Ladd, vice-president of Section H, was chairman of the single session in charge of the section. The social functions to which members of the affiliated societies were invited included: a reception by Dr. and Mrs. Robert S. Woodward at the Carnegie Institution, a reception at the New National Museum, and the opening of the Corcoran Gallery of Art.

SECTION H

Officers for the Washington meeting were nominated as follows: member of the council, Dr. Ales Hrdlička; member of the general committee, Dr. Charles Peabody. Sectional offices were filled by the nomination and election by the general committee, of Dr. J. Walter Fewkes, Bureau of American Ethnology, as vice-president for the ensuing year; Dr. Alfred M. Tozzer, member of the sectional committee to serve four years (to fill a vacancy), and Dr. Pliny E. Goddard, member of the sectional committee to serve five years.

President Fewkes opened the first public session of the joint meeting with the following remarks:

Ladies and Gentlemen, Members of the American Anthropological Association:

A year has passed since the last meeting of the association and we have now again gathered together, bringing from field and laboratory new material to lay before our fellow workers for their critical examination. It is eminently fitting that we should hold our service in this beautiful building erected by the nation to contain the precious collections gathered from the uttermost parts of the earth as well as our own country. Part of these collections illustrate the physical and cultural history of man, the sciences we cultivate. Our place of meeting should stimulate us with a new enthusiasm and a high ideal of research, and the time of year a new sense of the service to humanity it requires. Although our science has a very practical side, its strength lies primarily in the study of truth for its own sake and thereby the elevation of human character. With your assistance it shall be our effort to eliminate, as far as possible, all personal feeling in our discussions and keep continually in mind the noble ideal that all our work is a service to science.

It has seemed desirable to group our communications in such a way that discussions of methods and principles would be a prominent feature, and it is earnestly hoped that these discussions may be untrammelled by personal feeling, critical when necessary, but always on the highest possible plane. It is evident to all that with so many speakers, all of whom we desire to hear, it may be necessary sometimes for a speaker to curtail his remarks to conform to the time allowed by the committee. Although in such condensation he may feel that he can not do himself full justice, it is to be hoped that he will make the sacrifice for the sake of others who follow.

ADDRESSES AND PAPERS

The address of retiring Vice-president Roland B. Dixon of Section H on "The Independence of the Culture of the American Indian" is printed in *SCIENCE* of January 12, 1912.

In the absence of President Henry M. Belden, of the American Folk-Lore Society, his address on "Folk Poetry in America" was read by Dr. Charles Peabody.

Many of the important papers read at the joint meeting are represented in this report by abstracts. These are:

Investigations among the Plains Indians: CLARK WISSLER.

A preliminary statement of the general plan

for work by the American Museum of Natural History among the Northern Plains tribes and the southwestern Indians was presented in brief, followed by a general comparative résumé of the results in the Northern Plains. Attention was called to recent evidences for the former use of pottery by the Blackfoot Indians and its apparent similarity in type to that used by the Menominee and the Saukteaux. The chief discussion, however, was confined to ceremonial bundles of the Blackfoot, special attention being called to the great uniformity of structure in the rituals belonging to the same, suggesting that all had a common origin. Certain striking similarities to Pawnee rituals were pointed out as well as correspondence with the Cheyenne. It was noted, however, that the Blackfoot bundles seem to be of a distinct type as opposed to those of the Menominee, Winnebago, Osage, Sauk and Fox, etc. The individuality of the Blackfoot bundle scheme is shown in the peculiar transfer conception by which a bundle may pass from one person to another without restriction. There was also an investment feature in the transfer, that is, while considerable property changed hands when the bundle was secured, the owner could at any time secure an equivalent return by transferring the bundle to another. The transfer-investment character of Blackfoot rituals has not so far been reported among other tribes and may remain tentatively as a Blackfoot characteristic.

Problems in the Ethnology of the Crow and Village Indians: ROBERT H. LOWIE.

One problem in the ethnology of the Northwestern Plains is the extent of Caddoan influence. It is certain that one form of the pipe ceremony was introduced by the Arikara among the Hidatsa and thence traveled to the Crow. It is further possible that the origin of the earth lodge among the Hidatsa and Mandan is due to the same tribe, and accordingly it is necessary to study the Arikara-Pawnee culture in order to ascertain what other elements of the culture of the Upper Missouri may be reasonably traced to this source. A second problem suggested by a comparison of the Hidatsa and Crow is that of cultural differentiation among genetically affiliated tribes. The Crow and the Hidatsa are linguistically very closely related and must have separated in relatively recent times; nevertheless, the main features of their social and ceremonial life differ to such a degree that a purely cultural comparison could not satisfactorily establish a genetic relationship between them. A third problem is the

character and development of the "age" societies. It appears that certain features of these societies are widely diffused over the entire Plains area, while the system of age grades is confined to but five tribes. The essential factor in entering the age societies is purchase. An historico-critical investigation of the conceptions of these societies expressed in the writings of Maximilian, Schurtz and Kroeber is highly instructive as to the methods employed in ethnological thinking.

The Principle of Convergence in Ethnology: ROBERT H. LOWIE.

Dr. Graebner in his "Methode der Ethnologie" denies that the principle of independent development is logically on a par with that of historical connection in the explanation of resemblances. He also regards convergent evolution as involving assumptions as to a mystical psychological unity of mankind. Neither of these views is justified. More especially, the apparent mysticism in the doctrine of convergence disappears at once if the supposed identities are recognized not as ethnological realities, but as logical abstractions—not as homologies, but as analogies.

Notes on the Material Culture of the Rio Grande Pueblos: HERBERT J. SPINDEN.

The cultural conditions found in the southwest may be explained by divergent evolution due to a different economic use of the land. The aridity acted as a natural barrier against a people in the hunting stage, becoming one in the agricultural stage. The change could only be accomplished by cooperation in the building of irrigation ditches, etc., and by corresponding changes in the habits of life.

The nomadic tribes used the soil extensively. They gathered natural fruits and followed the chase. The sedentary tribes used the soil intensively. They irrigated the soil, built permanent villages and cultivated the household arts of weaving and pottery making. The minor features of material culture show the fundamental bond between the sedentary Indians of the southwest and the nomadic Indians of the Plains and Plateau. The following rough classification of the arts may be of interest.

Arts largely resulting from the change to sedentary life: architecture; pottery; weaving; decorative symbolism; use of white clay in cleaning buckskin; rattles of deer hoof, etc.; use of heart line in realistic art; occurrence of horned and plumed serpents in realistic art; use of sand paintings.

Features of extremely wide distribution not given in the above list: coiled basketry; bags or cloths of yucca fiber, Indian hemp, etc.; fire drills and pump drills; tubular pipes; grooved stone axes, arrowheads, etc.; flageolettes, flutes, drums, tambourines, etc.

Features that are probably of southern origin: metates; compound arrows with reed shafts; corn and other agricultural products; details in textiles and ceramics.

Features suggesting connections with the Plains and Plateau: buffalo shields and covers; war whistles; scalping knives; war lances and other regalia; deerskin shirts and leggings; porcupine quill decoration; decoration of buckskin by perforation; buffalo and elk hide blankets with decorated strip; rabbit-skin blankets; war-bonnets; sinew-backed and horn bows; double quiver with separate bow and arrow cases; grooved arrow rasps and polishers; flint flakes of bone; perforated arrow straighteners; self arrows with blood grooves and painted rings; wickerwork carrying baskets built on a foundation of two crossed sticks; fish trap made by converging walls and willow mat; mats of sewn tule; saddle made of two long narrow cushions; skin dressing tools; use of brains in tanning.

Some Aspects of the Negro Problem: ALBERT ERNEST JENKS, University of Minnesota.

Immigration.—Since we have a serious negro problem is it reasonable that this problem be made more difficult by admission into the United States each year of an increasing number of un-Americanized immigrant alien negroes?

There are no United States laws against such immigration. Just short of 40,000 such persons have come to this country in the last ten years; in 1911 we received 6,721. They come from near at hand—three fourths coming from the West Indies. The West Indies have nearly 6,000,000 negroes, any of whom may come to the United States. America debarbs oriental peoples, not because they are inferior, but because they and their culture are so different from American people and culture. For the same reason we should exclude the "African black." He should also be excluded because his admission is unfair to the white and also to the negro American—since he makes even more difficult one of America's most perplexing problems.

Miscegenation.—There are two forms of negro-white miscegenation: (1) Legal marriage, per-

mitted in twenty-three states where the unions are largely between negro men and white women; (2) illegal, more or less temporary unions, usually between white men and negro women. Investigation in a certain area shows that 65 per cent. of the white wives of negro men are foreign-born girls—usually of Teutonic peoples. Over two per cent. of children are born to these marriages. The result of both these forms of miscegenation is an increasing number of mulattoes cemented by color and prejudice to the negro race, while by inheritance they are endowed to a considerable degree with Anglo-Saxon initiative, will, ideals and desire for a square-deal—which, because of their color, they can seldom get. These mulattoes are the migrants in the north and west of the United States; they are more migrant than the restless, foot-free white American. The mulatto is the chief factor in the negro problem; the problem is bound to increase, then, in geographic area, in number of discontented negroes, and in its intensity, hand in hand with the increased flow of Anglo-Saxon blood into the veins of this new American man. All forms of miscegenation between the two races should be made a felony, punishable for one offence; and the father of children born to one white and one negro parent should be held to support and educate such children.

Who is a Negro?—The negro should be defined uniformly, so that there would be no question of the legal and racial status of any given person, no matter in what commonwealth he may be. To-day there is no such uniformity of laws.

Murderous Race Riots.—The white man's passion against the offending, or suspected, negro is often nothing short of blood vengeance against the negro race. This is seen in the fact that assault against the virtue of a white woman is only one of some three dozen offences for which negroes are annually lynched. In many of these lynchings and burnings murder is not committed in the frenzy of the moment; the mob starts out to lynch or burn—the crime is premeditated. If America is to train her annual armies of immigrant recruits into law-respecting and law-abiding citizens, she must punish to the limit necessary all participants in murderous race riots.

Education.—Each negro child should have, so far as public and private schools are concerned, an equal opportunity with the white child to make of himself all that he is capable of being.

Investigation.—A commission should be selected to study every aspect of the negro problem. This

commission might well be financed by private funds so as to keep it from the almost certain bias of politics and sectionalism.

Presentation of Specimens of Eolithic Form from Salinelles (Gard), France: CHARLES PEABODY.

Dr. Marignan (Hérault) recently discovered chipped flints, which he considers to be eoliths. In spite of their localization the specimens are eoliths in facies probably rather than in actual age. Noteworthy is a series of discoidal hammers. The natural fractures of the flint and the outlines of the stones were carefully noted and compared with specimens from the Kent Plateau, Boncelles, etc.

Cacimbas of the Isle of Pines (Cuba): J. WALTER FEWKES.

The word *cacimba*, varying in form, apparently found in several linguistic stocks, is widely spread in aboriginal Latin-America, from the Andes in South America to the larger Antilles. It is supposed by most linguists and by natives generally, to be a purely aboriginal term signifying a receptacle or, in a slightly changed form, possibly another word, a pipe. In the Isle of Pines it is applied to a hill with reservoir-like depressions, and to a landing place called "Embocadero de los Casimbas," near Sigunea Bay, but mainly to certain artificial subterranean, vase-shaped receptacles occurring in various localities. The *cacimbas* are always constructed under ground, where they are either cut out of the solid rock or built of rude masonry. In a few instances the lower portion is excavated and the upper or neck is formed of a wall of undressed stone.

About thirty of these structures were examined in various localities in the Isle of Pines, others being reported from the south coast of the western end of Cuba. They occur near to or far from the banks of rivers, some distance from the seashore, in woods or open fields, singly or in clusters. The largest number was found near Nueva Gerona and Santa Fé, the latter situated in the middle of the island, where considerable quantities of turpentine were once made, as indicated by remains of ovens of undoubted Spanish manufacture. Isle of Pines *cacimbas* are accompanied, especially where the surface of the ground has not been greatly disturbed, by low circular mounds depressed in the middle but with raised rims varying from twenty to thirty feet in diameter, situated about the same distance away and overgrown with guano prieta or black-bark palmettos and under-

brush. The *cacimbas* average about five feet in depth; four feet is the greatest diameter and the narrowed, neck-like entrance, the rim of which is sometimes elevated a foot above the surface, has an orifice large enough to admit the human body. Their inner surface is generally smooth, plastered and blackened, the mortar in which the stones are laid being black, as if impregnated with tar. The floor is flat, circular, sloping slightly to the center, where, in one instance, there is a groove connecting with a covered trench which opens on the hill-side. A thin layer of tar was found covering the floors of several examples. When these *cacimbas* were cleaned out they were discovered to be about half full of rubbish, damp soil, débris and decaying leaves. No aboriginal implements or human bones occur in any of them, but there were in one a few fragments of Spanish pottery and the broken jaw of a domestic hog, with other animal skeletal remains. The moist earth in some *cacimbas* is a favorite habitation for the Cuban crayfish, many specimens of which were taken from one of these structures near Mr. Allnuts's home a short distance from Nueva Gerona. Trenches dug diametrically across the adjacent mounds revealed black layers containing ashes and charcoal with fragments of tar just below the humus, but no walls or aboriginal objects were observed in these mounds.

The Isle of Pines *cacimbas* are almost universally, and without hesitation, ascribed by the natives to the Indians. It is sometimes held that they were constructed by Caribs as storage places for tar and other objects, as their name implies, and one intelligent person affirmed that the builders were Indians working under Spanish direction. It is claimed by others that they were made by white men and were used as receptacles for turpentine, the neighboring mounds being the places where this substance was manufactured. One of those who held this opinion claimed that pine logs were so laid on the mound that their ends were brought to the center and application of heat caused tar to ooze from them into a pan or small receptacle, from which it was transferred to the *cacimba*. No reliable facts that would prove or disprove any of the current theories were obtainable, but it is certainly strange, if these structures are of Indian manufacture, that no aboriginal objects or implements were ever found with them. Under the circumstances their origin remains one of the unsolved problems of the West Indian culture history. However, the opinion of a very intelligent native of advanced years, who claimed

that he was a descendant of one of the Comareo Indians of the Isle of Pines, is worthy of record. He said that he had been told by his father, who came from Camaguey, that they were constructed by the Indians and that he had never heard that white men made them or used them as turpentine receptacles. Two cacimbas, situated about three miles from Nueva Gerona where the road to El Bobo forks, sending a branch to McKinley, are called Cueva de los Indios, although there is no cave in the vicinity.

The morphological resemblance of the cacimbas to the chultunes of Guatemala and Yucatan is great. Cacimbas are ordinarily smaller and differ from chultunes in not containing aboriginal objects. If the structures are Indian and pre-Columbian, of which I confess doubts, this unique fact is significant as being the only resemblance thus far found in the antiquities of western Cuba and the neighboring peninsula of Yucatan. No evidence can be presented to indicate that they are related to the cave men of Cuba or to those Indians whose skeletal remains were found in the Cueva de los Indios near Nueva Gerona.

The Chultunes of Northern Guatemala: ALFRED M. TOZZER.

The subterranean cistern-like reservoirs called "chultunes" of northern Yucatan as described by Mr. E. H. Thompson in his paper on "The Chultunes of Labna" seem to have been intended primarily for the storage of water. They are found in most cases in regions where there are no natural sink-holes or cenotes or other available source of water. In a few cases they may have been used as burial places.

In northern Guatemala the country is well watered and there is little need of cisterns for the storage of rain-water. The chultunes, however, are far more frequent than in the peninsula to the north. A large number were mapped along the route taken by the Peabody Museum Expedition of 1909-1910. They seem to stretch in long lines connecting the various ruined centers in this region. In addition, several were found in close proximity to the cities themselves.

The chultunes of this region are of two types, the simple cistern-like subterranean chamber similar to those in the north and the lateral-chambered chultun. This second type is met with far more frequently than the first and consists of a room excavated out of the rock and opening from the bottom of the shaft.

From the fact that these chultunes occur in

many places where there is an abundant supply of water, it may be argued that the storage of water is not the primary object of these subterranean rooms. Some were no doubt used as burial places. From a large lateral-chambered chultun at Yaloch a large collection of excellent Maya pottery has been taken out. From the manner of occurrence it seems probable that there was a burial here on the floor of the chamber, although no bones of any kind were found still existing in the three feet of earth which had been deposited in the chamber. Three examples of a tall bottomless type of vase were found which are unique. Covers to jars were also common.

Chultunes were also excavated at Chorro, Nakum and Holmul. From the large number of extensive groups of ruins in this area and the hundreds of small mounds and chultunes connecting these centers with one another, together with the examples of pottery from this region, it may be seen that here in northern Guatemala we have perhaps the most important center of the Maya culture.

The Mexican Maize Season in the Codex Fejérváry-Mayer: STANSBURY HAGAR.

On sheets 33 and 34 of the Codex Fejérváry-Mayer (Loubat edition) are two series of symbols including four paintings on each page, two above, two below. The four upper symbols, reading from right to left in the usual manner, picture the maturing of the maize crop during a period of four months: the lower symbols represent the deities governing the months mentioned. But the writer has presented evidence in a previous paper upon the "Elements of the Maya and Mexican Zodiacs"¹ that this sequence of deities also represents the zodiacal signs Cancer, Leo, Virgo and Libra. These signs correspond with the months July, August, September, October, which correctly represent the maize season described upon the Mexican plateau.

A Study of Biological Paleogeography in its Bearing on the Origin of Man in America: AUSTIN H. CLARK.

From a study of the geographical distribution of animals we find indicated: (1) an Indian Ocean land extending from the Lesser Sunda Islands (Sumbava to Timor) to Ceylon, Madagascar, the Mascarene Islands and southeastern Africa; (2) an Afro-Antillean land extending from the Mascarene Islands and Madagascar across south cen-

¹ Sixteenth Int. Cong. of Americanists, pp. 277 et seq.

tral Africa to the West Indies and the highlands of South and Central America (including the Galapagos Islands); (3) a South Sea Island land bounded by Formosa (Taiwan), southern Japan, the Hawaiian and Marquesas Islands, New Zealand, New Caledonia and the Lesser Sunda Islands (but not New Guinea), possibly including Java, Sumatra, Borneo, Celebes, the Philippine Islands, and the Malayan region; (4) a large Australian continent including Australia, New Guinea and the Aru Islands (but not the Ki Islands nor the islands further west or north); (5) a connection between southern Australia and the Magellanic region; and (6) a very broad strait including the entire Behring Sea and the adjacent Arctic Ocean as far at least as Wrangel Island and the New Siberian Islands. 1 and 2 became disintegrated and disappeared at a very early date, probably long before the existence of man; 3 became submerged, first on the eastern border, very early, also probably before the existence of man; 5 disappeared very early, but persisted late enough so that much of the southern South American fauna entered that continent from Australia by means of it; it is possible that man also entered South America along this path and later entirely lost his Australian character through amalgamation with the true American stock from the north; this would account for certain Australian characteristics found among the Fuegians; 6 persisted long after man inhabited eastern Asia; it was thus probably the path by which man entered America.

The People of Sandao-a: ELIZABETH H. METCALF.

In the extreme southern part of Mindanao, the most southern and largest of the Philippine Islands, on the foothills of the beautiful volcano which the Spaniards call "Apo" (The Grandfather), live the Bagobos, a pagan tribe of high mentality, docile natures, spectacular in dress, and in some respects very primitive. They call the volcano "Sandao-a" (pronounced Sandowa), "The Sulphurous One." These Bagobos are a mountain people, and to a certain extent nomadic. They understand only the cultivation of mountain rice; and as this necessitates the cutting of a new bit of forest each year for their rice plantation, they are likely to move also each year into the vicinity of the new rice field. Recently they have been brought together into villages by government order. Although the American arrangement of the tribal wards somewhat curtails the political power of the present head Dato, he is still highly esteemed by both natives and Americans.

Formerly the wealth of the people was in slaves, animals, aguns and fine clothes. The days of slavery are past; the aguns, or big gongs, they still possess. These are their most important musical instruments; and the magnificence of tone coloring of many large gongs played together is quite indescribable. The Bagobos have other instruments of percussion, wind and strings, but these large gongs are also for them their medium of exchange, and a man's wealth is usually reckoned by the number of gongs he possesses.

Their clothes are made from hemp fiber, which the people weave into a cloth, unique in manufacture, and which lends itself admirably to the artistic fashion of ornamentation employed by these people. Of the old embroidery of cross-stitch on coarse Chinese cotton cloth, which the women understood fifty or more years ago, there are still a few samples to be found; but the present style of ornamentation consists of an applique in various forms of bright-colored cloth, of embroidery, of beads and tiny pearl disks sewn on in designs. The beads the people purchase from the Chinese merchants, the pearl disks are made from shells, found farther back in the mountains by another tribe living there.

The houses are always built up from the ground—sometimes of bamboo prepared in various ways, sometimes with the frame of wood with the leaves of certain trees laid on thickly for the roof and more openly for the sides. The entrance to the house is by a notched stick or by a ladder, and the furniture is exceedingly simple. A peculiar feature, especially of the houses of the aristocrats, is the different floor levels. At the extreme end of the house, opposite the door, the floor is often raised from 6 inches to 3 feet and the whole width of the house. This place is for guests and for the heads of the family. I have seen a house of an important old Dato with three floor levels; on the highest level only the old Dato and his wife and such persons as they might bid, could come.

The fireplace is usually near the door, with bamboo tubes of water standing on end nearby; the better class have bamboo frames of various kinds for holding dishes, and always in its proper place in every house, even the poorest, is the "Tambara," the little bowl containing the usual offerings, the simplest form of house altar. The greatest of their altars, the "Pat-a-non," or war altar, is also a house altar. The erection of this altar is allowed to only a very few high Datos and is connected with their most important fes-

tival, which occurs some time during rice planting. The most significant ceremonies formerly attended this festival, which might last from two days to two weeks; but as in other regions of the earth, so here, the incoming of commerce and civilization kills the ancient culture; and it is probable that if it is given at all in its entirety, it is only in the remote regions of the mountains, that this great festival of the "Ginum" is now observed with all its elaborate ceremonies. The Bagobos have other altars for different places and different occasions; altars for the planting of their corn or rice; for the cutting of their crops; and very often they place an altar with their offerings near a great tree or a beautiful spring or running water, especially if the water is to be used for any ceremony of purification.

A Note on the Personification of Fatigue among the Nez Percé, Kutenai, et al.: ALEXANDER F. CHAMBERLAIN.

In common with other authorities, Dr. Paul Ehrenreich, in his recent volume, "Allgemeine Mythologie" (Leipzig, 1910), takes the view (p. 159) that personifications of abstract ideas, etc., are of little mythological significance, being almost entirely of cultural or ceremonial import. Such personifications as do exist he regards as not primarily personifications of such qualities, but originally representations of lunar personalities, as, *e. g.*, in the cases of the Greek Hermes-Autolykos (gambling and pleasure) and the gambling-deities of certain North American Indians. According to Ehrenreich, the hunting-gods are "not really personifications of the hunt, but almost always the moon-god, or at least a being furnished with lunar traits" (p. 160). But this is going too far in the way of panlunarism.

Among interesting personifications of abstract qualities among the North American Indians are *sleep* among the Ojibwa (Schoolcraft) and *hunger* among the Shushwap (Teit). Another case is that of *fatigue* among the Nez Percé and the Kutenai.

As Bartels ("Medicin d. Naturv.," Leipzig, 1893) notes (p. 235), citing Bancroft ("Native Races," Vol. I., p. 284), among the Nez Percé there was a ceremonial participated in annually by all the males of the tribe between the ages of 18 and 40. The ceremonial, which lasted for from 3 to 5 days, had, as its most noticeable element the pushing of willow-rods down the throat into the stomach, this being followed by hot and cold baths and fasting. The firm opinion of the Indians is that they thereby obtain great bodily

strength and power of resistance to fatigue. The ceremonial is held in order to overcome *Mawish*, the spirit of fatigue. This is the Nez Percé "spring-medicine," reported on recently by Dr. Spinden. There are certain identities and resemblances in Kutenai and Nez Percé mythology, etc., that deserve careful study (one curious item is the presence in each of a character with *one leg*). *Mawish*, of course, is the Chinook jargon word for animal (*e. g.*, deer)—and the deer figures prominently in the dances, etc., of the Kutenai.

Initial and Terminal Formulæ of Kutenai Tales:

ALEXANDER F. CHAMBERLAIN.

Although, in the adverb *pik'āks*, the Kutenai language has a word corresponding to our "long ago," "once upon a time," etc., so familiar as an initial formula in the tales and legends of many lands, this term does not appear as the customary beginning of such stories as have been recorded in the native text.

In narration the Kutenai employs the "historic present," as the grammarians term it, adding thus to the vividness of the story told. The great majority of the tales begin with a verb in the present tense, therefore, not with such a phrase as our "once upon a time," with its verb in the past tense. Examples of Kutenai initial formulæ are:

Kānaquē Skinkūts	= Coyote is traveling.
Kānaquē tlāntlā	= Grizzly-Bear is traveling.
Kāusākā'ne Wōtak	= Frog is there.
Kōnitlāinē Skinkūts	= Coyote is in his house.
Kōnitlāinē G'ōtsāts	= Chipmunk is in his house.
Tsināqē Skinkūts	= Coyote sets out (starts off).
Kāktlūnām'nē	= There is a village.
Nātlqōnē Djāis	= He carries his brother on his back.

Very seldom is the order as above indicated inverted, as *e. g.*, Mitskākas Kāusāk'ā'nē, "The Tomtit is there." The "Tale of Seven-Heads" begins: Wistātlātlām sāhānē, "Seven-Heads is bad"; a tale of the owl, Kūpī tsākētlāine, "The Owl is a great thief." The term āswātlānē, "together," begins a tale, as, *e. g.*, Āsmātlānē tsināqē Skinkūts āqkī Nāik'yū, "Coyote and Fox set out together," although the formula Skinkūts āsmātlānē, etc., is also used. Among the Kutenai, as with some other Indian tribes of the Oregon-Columbian region, the coyote who figures so largely in myth and legend is represented as being "on his travels"; so, too, with certain of the other animal characters. Kānāque Skinkūts is the typical be-

ginning of most of the stories in which he plays the chief rôle; *tsináqē*, "he starts off," "he sets out," is another initial formula of frequent occurrence in the animal-tales. The word *Káusāk'ainē* signifies "he is at," "he stays," "he stops," "he is there," "he is." Such beginnings are *Kónitlāinē*, "he is in his house," "he is at home," and *Kāktlūnām'nē*, "there is a village," are quite picturesque. Often there is no terminal formula in Kutenai stories. A common term, however, is *táqas*, "ended," "enough," "done," "finished." The phrase *tlátlōnē*, "there is no more," also occurs. The terminal *Kāpēt*, used by some of the Indians, seems to be the *Kopēt* of the Chinook Jargon, modified by supposed derivation from Kutenai *K'āpē*, "all."

The Allentiacan Linguistic Stock: ALEXANDER F. CHAMBERLAIN.

All the evidence in hand indicates that the language (extinct in the eighteenth century; represented by the "Grammar and Vocabulary" of de Valdivia, published in 1607 and 1608, reprinted in 1894 by Medina) of the *Allentiacs* or *Huarpes* forms an independent linguistic stock, the *Allentiacan*, as it may be called. The *Allentiacs*, according to Boman, were quite a savage people and unrelated to the tribes of the Andean valleys. This Argentinian people inhabited, at the time of the Spanish conquest, the plains about the great lagunes of Huanacache, extending probably to the western slopes of the Sierra de Cordoba, and southward to the northern parts of San Luis and Mendoza. The *Allentiac* linguistic material has been discussed by de la Grasserie (1900) and Mitre (1894 and 1909).

The Bororoan Linguistic Stock: ALEXANDER F. CHAMBERLAIN.

There can be no doubt of the status of the language of the Bororó Indians of Central Matto Grosso (Brazil) as an independent stock, as suggested by von den Steinen as early as 1886, or a little before that. Brinton in his "American Race" (1891) failed to recognize this, or had not noticed von den Steinen's statement, and classed them incorrectly as Tupian. It was only in 1888, as a result of the second Xingú expedition, that the identity of the so-called "Coroados" branch of the stock with the genuine old Bororo was established. Conflicts with the whites have sadly reduced the numbers of the Bororó. Their characteristic area, as defined by Frič (1906), is "the entire course of the S. Lourenço river as far as its

union with the Cuyabá, where they come into contact with the Guató." Further north they occupy "both banks of the Araguaya right across the road that leads from Cuyabá to Goyaz." In the first half of the eighteenth century these Indians roved about the region of the Xingú-Araguay watershed in central Matto Grosso. Later on, the so-called "Borroró do Cabaçal" settled on the upper Paraguay. The vocabulary of 360 words, given by von den Steinen, in his "Unter den Naturvölkern Zentral-Brasiliens" (1894) is the most useful linguistic material of the Bororoan stock. Other vocabularies are given by Caldas (1899) and Frič and Radin (1906)—the last print also a vocabulary from Boggiani.

The Calchaquian Linguistic Stock: ALEXANDER F. CHAMBERLAIN.

The character of the Calchaquian language and the extent of the area over which it prevailed have been the subject of much discussion and dispute. Some have held that the Calchaqui, Catamareño, or Cacana tongue was nothing more nor less than a dialect or *patois* of Onechua, spoken in Tucuman, etc. Others seek to connect it with Aymara, Atacameñan, etc. The Calchaquis may have been a mixed people, as Lafone-Quevedo and Ehrenreich maintain. But there was an essential Calchaquian (or Diaguitan, as Boman prefers to call it) culture, and with it went a language, which was still spoken in the seventeenth century, and, from all appearances, seems to have been an independent form of speech, deserving rank as a linguistic stock. Boman (1908) failed to find any trace of the existence in Paris of the grammar and vocabulary of Calchaqui said to have been written by the Jesuit missionary Alonso de Barzuna (or Barcena) in the sixteenth century. The Calchaquian linguistic data consist of place-names, etc., discussed, *e. g.*, by Lafone-Quevedo, in his "Tesoro de Catamarquenismos" (1898). At its greatest extent the Calchaquian (rather than Catamarcan or Diaguitan) stock may be said to have occupied a territory of varying breadth, between about 23° 30' and 32° 30' S. lat. For the archeology of this region much knowledge is due to the researches of Ambrosetti, his colleagues and students.

Recent Opinion as to the Position of the American Indians among the Races of Man: ALEXANDER F. CHAMBERLAIN.

The author discussed briefly the various theories in the light of the scientific literature of the past

few years—the autochthonous, the European, the Asiatic. The protagonist of the theory of the autochthonous origin of American man is Professor Ameghino, the Argentinian paleontologist, who derives him from the higher simians in southern South America. Professor G. Sergi, the Italian anthropologist, who looks with some favor on Ameghino's views, recognizes—he takes a rather polygenetic view of human origins—among his separate human races a *facies Americana*. The old view of Boyd Dawkins (resurrected by him, in a somewhat modified form) that the Eskimo are the representatives or the descendants of European cave-man still finds favor in certain quarters, but the recognition of the interior origin (in the region east of Hudson Bay) of the Eskimo as demonstrated by Boas, etc., places this theory rather out of court. That the American race is simply a Mongolian type, a view once much in favor, has lost its standing since the results of the Jesup North Pacific Expedition have become known. The data acquired concerning the so-called “paleo-Asiatic” peoples (Chukchee, Konaks, Kamchadales, Yukaghir, etc.) of northeastern Asia and the peoples of northwestern North America, demonstrate that the “paleo-Asiatic” people, at least (as the Asiatic Eskimo did later) must have crossed from America to Asia long subsequent to the arrival of the ancestors of the American race from Asia (if they came by way of Bering's Straits, as now seems reasonable). The American Indians may thus be considered as an Asiatic people (sprung from the proto-Mongolian stock), considerably modified by their New World environment. By a reflux wave of migration they have “Americanized,” as it were, a large section of northeastern Asia.

The Mourning Ceremony of the Southern Paiutes:
EDWARD SAPIR.

The main ceremony of the southern Paiutes of Utah, Arizona and Nevada is an annual mourning ceremony or “cry.” The expenses of such a ceremony, which generally lasts for five days in June or July, are borne by two men, one of them a close relative of a recently deceased member of the tribe. Sometimes neighboring bands are invited to take part in the ceremony. The place of the mourning ceremony varies from year to year and is decided upon at a preliminary council meeting. The essential elements of the ceremony

are the singing of numerous mourning songs and the offering of valuables, such as baskets, articles of clothing and horses, in memory of the dead.

The songs, which are accompanied by rattles held by each singer, are to be classified into four sharply distinguished types, roan songs, bird songs, coyote songs, and mountain sheep songs. Each of these has its characteristic type of melody and accompanying movements on the part of the singers. There does not seem to be any idea of a grouping of the participants of the ceremony into four societies singing these different types of songs; one may join in the singing of any class of songs and leave one group of singers for another. There is, however, a song leader for each type of song. This merely means that certain people are proficient in the singing or composing of particular classes of songs. The texts of the songs are in comparatively few instances in Paiute, but belong to a language that is unintelligible to the singers. There is reason to believe that the types of songs, the actual song-texts, and perhaps the whole ceremony are borrowed from the Yuman tribes to the west. There is a possibility that the song texts consist of an elaborate system of burdens.

At various stages during the singing, which forms the major part of the ceremony, ceremonial “cries” take place which are conducted by a cry leader. On the last night of the mourning ceremony, during which it is forbidden to sleep, the articles which have been set aside as offerings to the dead are burned on a funeral pile; horses are shot, valuable articles which have been exposed as offerings may be taken by others and replaced by objects of less value. It is evident that the Paiute mourning ceremony bears considerable resemblance to mourning ceremonies of various Californian tribes.

Cephalic Type Contours: WILLIAM C. FARABEE.

The main object aimed at in all physical measurements is to find characters that shall be peculiar to the race or group of people under investigation. Under the old methods little attention was given to actual measurements of characters, except in so far as they aided in the determination of ratios or indices. The various indices for each individual were calculated and the average and range determined for the whole group. It was believed that these ratios were more constant than were the absolute dimensions and hence general conclusions were based upon the ratios obtained from short series.

Recently, improved methods have shown that these ratios have as wide range of variability as the measurements themselves and it has been found necessary to apply rigid statistical methods to the actual dimensions. The most constant characters of a large number of individuals must be observed and selected for measurement. In the past the head measurements have been considered of most importance and most constant. For the Harvard Expedition to South America De Milhau devised a cephalometer which allowed one to take measurements from the center of the auricular passage to any desired position on the head or face. For comparative group studies these dimensions were most satisfactory. Yet one very important factor was lacking, viz., the angle between the lines, which prevented any possibility of graphic presentation. To overcome this defect and to minimize as far as possible the importance of definitely locating all the positions mentioned, a protractor was attached to record these angles. This made it possible to locate the points to which the measurements were made, whether or not the positions were correctly determined. All measurements and angles were taken with reference to the horizontal plane of the Frankfort agreement. The vertical height is perpendicular to this plane and this line is marked zero in the scale.

When all results have been worked out according to correct statistical methods it will be possible to plot the *means* of all angles and measurements and when the ends of these lines have been connected by means of a spline a *type contour* will result. In the same way type contours of different related or unrelated groups in races may be made. These contours should be plotted on thin paper and superposed for comparative study. The advantage of the method is that it may be applied to the cranium as well as to the living head and direct comparisons made to determine relationships. Head measurements may be reduced to cranium measurements by allowing for the thickness of the cranial tissues.

Some Factors in the Differentiation of Human Types: ROBERT BENNETT BEAN.

Dr. Bean has studied random samples from four groups of mankind, Europeans, Africans, East Indians and Filipinos, and in each group three types that are similar in physical characteristics may be segregated. He has heretofore called these three types Primitive, Australoid and Iberian, but here they will be designated *A*, *B* and *C*, respectively.

Type *A* is small, brachycephalic and platyrrhine.

Type *C* is tall, dolichocephalic and leptorrhine.

Type *B* is medium in stature, mesocephalic or mesaticephalic and platyrrhine.

From the standpoint of growth other factors may be utilized to differentiate the types. It is known that the relative total leg and arm length increase from birth to maturity, the face increases in size, and the umbilicus descends. To make these factors relative we may use the length of the leg in relation to stature, the length of the arm in relation to stature, the size of the face in relation to the size of the head and the position of the umbilicus in relation to the position of the suprasternal notch and the symphysis pubis. Dividing the length plus breadth of the face by the length plus breadth of the head gives a cranio-facial index, which is low at birth and high at maturity. Dividing the distance of the umbilicus from the symphysis pubis by the distance of the umbilicus from the suprasternal notch gives the omphalic index, which is high at birth and low at maturity.

The three types may be assembled by the use of these factors according to the stage of development that each represents, as follows:

Type <i>A</i> Hypo-onto-morph	Type <i>C</i> Meso-onto-morph	Type <i>B</i> Hyper-onto-morph
	Relative total arm length	
Small	intermediate	large
	Relative total leg length	
Small	intermediate	large
	Cranio-facial index	
Small	intermediate	large
	Omphalic index	
Large	small	?

Type *A* is less developed than type *B*, and type *C* is intermediate.

Additional factors, mainly descriptive, have been utilized to differentiate the three types, the form of the external ear or pinna enabling one to classify any individual after close scrutiny. The distinctive differences of ear form refer particularly to the inversion or eversion of the outer rim of the concha, and the rolling in (forward) or rolling out (backward) of the helix. These changes are especially to be seen at the lower part of the ear in the region of the tragus and antitragus, and the helix and anthelix. The ear of type *A* has an inverted concha—the tragus and antitragus appear to be pushed in—and an inrolled helix, giving it a trumpet or bell shape. The ear

of type *C* is the reverse of this: the concha is everted—the tragus and antitragus appear to be pulled out—and the helix is rolled back at its lower part. The ear of type *B* appears to be intermediate between these extremes. The ear type is more distinctive than any other factor, and may be utilized more readily, therefore it is more serviceable.

The nose form is useful in the differentiation of type, although it is not so good as the ear form. The nose of type *A* is infantile. The bridge and root are wide and depressed, the nostrils flare and open forward rather than downward. The nose of type *B* is wide, long and high, with depressed root, straight, high bridge and nostrils that are wide and open only slightly forward and downward. The nose of type *C* is narrow, long and high with high root and bridge and nostrils that open downward.

The soundness of the teeth in types *A* and *B* is noteworthy, whereas the teeth of type *C* are very unsound.

Type *C* is more susceptible to diseases of the epithelial tissues, or those organs derived from the primary epithelium, such as the alimentary canal and the central nervous system; whereas types *A* and *B* are more susceptible to diseases of the mesothelial tissues or the organs derived from the primary mesoderm, such as the circulatory system.

Types *A* and *B* seem to be linked together in many respects, and in this they are different from type *C*, which seems a more clearly differentiated type than the other two. The three types differ slightly in the different groups of mankind, and resemble the type that is distinctive for each group. For instance, type *A* is distinctive for the Filipinos included in the present study, therefore types *B* and *C* resemble type *A* among the Filipinos; type *B* is distinctive for the Africans, therefore types *A* and *C* resemble type *B* among the Africans; and type *C* is distinctive for the Europeans and East Indians, therefore types *A* and *B* resemble type *C* among these peoples.

Type *C* apparently retains its characteristics in all the groups more specifically than do the other types. As this type is so distinct in at least the four groups thus far studied, besides forming such a considerable part of these four groups, Dr. Bean concludes that this type in the four groups originated from the same stock. He therefore believes that the tall long-headed blond northern European, the small long-headed brunette southern European, the tall long-headed, straight-haired black East

Indian and the tall long-headed, kinky-haired African are derived from this original stock. Their ear form is identical, and other factors confirm this evidence. Existing differences may be accounted for by hereditary, climatic and cultural conditions.

Linguistic Classification of Algonquian Tribes:
TRUMAN MICHELSON.

Algonquian tribes linguistically fall into four major groups, to wit, Blackfoot, Cheyenne, Arapaho and Central-Eastern. The last may be subdivided into Central and Eastern. Of the Central subdivision, Ojibwa, Ottawa, Potawatomi and Algonquin form a special branch; and Peoria, etc., distinctly belong with them, but the latter are further removed from the others than any one of those from each other; moreover Peoria, etc., in certain respects are more archaic in their phonetics, and in some grammatical categories have more northern affinities. Menominee has the closest relations with Cree-Montagnais, though also is intimately connected with Fox, etc. Fox, Sauk and Kickapoo vary from each other but slightly; the differences are mainly in intonation and idiom. The first two are more nearly related than either is to Kickapoo. The last is closer to Fox than to Sauk. The three distinctly belong with Cree-Montagnais and Menominee as opposed to Ojibwa, etc. Shawnee is very close to Fox, Sauk and Kickapoo, but in certain respects agrees with Ojibwa, etc., and in others the Eastern subdivision. Natick clearly belongs with the Central and not the Eastern subdivision. In some categories it has affinities with the Ojibwa branch, but in others it is varied; and has some marked characteristics of its own. Delaware decidedly belongs to the Central and not the Eastern subdivision despite the popular notion to the contrary. The material in Zeisberger is a medley of Unami, Unalachtigo, Munsee. It is sufficiently clear that the linguistic relations of these were different; but the existing material is so unsatisfactory that it is premature to make any definite statement. The Eastern subdivision consists (to-day) of Micmac, Passamaquoddy, Malecite, Penobscot, Abenaki. Micmac is specialized in that it employs a conjunctive instead of independent mode; but the popular notion that it differs widely from the other members of the subdivision is mistaken, as is the belief that the Eastern subdivision belongs with Delaware. On the contrary the relations of the group are distinctly with Fox, etc., and Shawnee.

Dr. Michelson's paper is to appear in amplified form as one of the "Accompanying Papers" in an "Annual Report of the Bureau of American Ethnology."

The Status and Development of Canadian Archeology: HARLAN I. SMITH.

The archeological work of the Geological Survey since June 15, 1911, the date of Mr. Smith's appointment as dominion archeologist, has been divided into two main groups—the activities for diffusing archeological knowledge by such means as museum exhibits, guide books and lectures, and those for increasing such knowledge by exploration, original research and systematization.

The national collections have been classified tentatively into groups corresponding to the five ethnological culture areas. This grouping may be modified with the progress of research. The collection from the southern coast of British Columbia and the one from the southern interior of British Columbia are representative, and the collection from Ontario is large. The other provinces of the Eastern Woodlands, the Plains and the Arctic are hardly represented at all, and there are practically no data at hand concerning them. Popular guides have been prepared for the two western archeological areas, and work is progressing upon similar guides for the others. A series of lantern slides illustrating the archeology of Ontario has been made; general and topical labels for the collection are in the hands of the printer; duplicates of these will probably be furnished to the other museums throughout Canada, which with duplicate specimens, casts and photographs, when supplied to these museums, will make the archeological work truly national.

An archeological survey of the dominion is being organized, a reconnaissance has been made of some of the village sites in Ontario, and a survey of Brantford Township has been completed by Mr. W. J. Wintemberg. A scheme for systematizing and digesting the scattered and incomplete archeological data at hand and to be received in the future has been inaugurated. The cooperation of railroad officials, the northwest mounted police, Indian agents and geological explorers has been secured.

It is proposed to explore the less well known parts of Canada, beginning with intensive exploration at one site in each of the great cultural areas, in order that the results in the way of collections and monographs may be used as standards to which to refer for identification the results of

future exploration obtained in bordering areas where we may expect to find mixed or superimposed cultural material.

It is planned in the near future to make a reconnaissance of the Plains from which there is practically no material to-day available, to continue scientific exploration into the northern interior of British Columbia, using the Grand Trunk Pacific as a base, and to do an intensive piece of excavation along the St. Lawrence. Next the shell-heaps of the Atlantic coast may be examined.

The papers read of which the secretary was unable to obtain abstracts were:

The Anthropology of the Pueblos: A. HRDLÍČKA.

To appear as a bulletin of the Bureau of American Ethnology.

Notes on the Words and Music of the "White Captive" Ballad: CHARLES PEABODY.

A Comparative Sketch of the Menominee: ALANSON SKINNER.

Quechua Folk-Music: W. C. FARABEE.

The Analysis of Chippewa Music: FRANCES DENS-MORE.

The Permanent Protection of the American Indian: FRANKLIN W. HOOPER.

Notes on the Chippewyan, Sarcee and Kiowa Apache: PLINY E. GODDARD.

Amalgamation in Minneapolis: A. E. JENKS.

Results of Field-work among the Hurons of Lorette (Quebec), Anderson (Ontario) and Wyandotte (Oklahoma): C. M. BARBEAU. To be printed in full in one of the annual reports of the Geological Survey of Canada.

The following papers were read by title:

William Carter, Bensontown Homer: PHILLIPS BARRY.

An Early Cranium of Homo sapiens from a Cavern at Unterlesece, near Trieste: HARRIS H. WILDER.

The Distribution of the Spear-thrower in South America: M. H. SAVILLE.

Some Analogies between the Pottery of the Southwest and that of the Predynastic Period in Egypt: A. V. KIDDER.

Early History of the Yuchi Indians: JOHN R. SWANTON.

The Relation of the Quickness of Learning to Retentiveness: D. O. LYON.

Cayuga Notes: GRACE E. TAFT.

GEORGE GRANT MACCURDY

YALE UNIVERSITY